

# Atbash Protocol White Paper`



## Summary

The Atbash Protocol is a decentralized reserve currency protocol based on the \$BASH token. Every \$BASH token is backed by a treasury of assets in order to give the \$BASH token an intrinsic value which the price of \$BASH cannot fall below. The Treasury plans on holding ETH, DAI, USDC, USDT and other cryptocurrencies in order to provide value, stability and the ability to offer the unique utilities of the \$BASH token. The Bonding mechanisms native to the \$BASH token will allow the Atbash Protocol to provide assistance for the purchase of properties, supplies, business start-up capital and property improvement while still providing a substantial APY for investors.

## **Why Atbash?**

For many years now, those in the Crypto Community, as well as many other communities, have faced the full force of “cancel culture.” This took the form of crypto-holders facing regulatory threat and ostracization by the banking industry for an inability to show regular income streams as well as being unable to use these crypto assets as collateral. The Atbash Protocol was created as an answer to these hardships. The Atbash Protocol is not just a cryptocurrency, it is a new way of looking at crypto’s promise to change the world by offering the bridge between it and the real world for users in a way that is simple to understand, easy to use and adequately flexible to meet an abundance of needs.

Our goal is nothing short of being the bridge between the crypto-world and the real world that preserves consumer sovereignty while acknowledging the practical need to deploy capital in a timely manner.

## **The Atbash Mission**

The primary purpose of The Atbash Protocol is to develop and build an expanding and cohesive ecosystem that will support and make better use of alternative economies. The Atbash Protocol will provide a means for people to transact to meet their real world needs in their day-to-day lives – buying and selling whatever people need to live, survive, and thrive in any and all environments.

Additionally, The Atbash Protocol will enable those who wish to grow an investment the means to do so outside of traditional finance in a manner that generates a high yield while also affording the Atbash community (token holders, stakers and grant beneficiaries) access to a number of highly valuable financial products and additional utilities (further described below). Through a number of specialized protocol mechanics, The Atbash Protocol will make it possible to finally truly live off of the financial grid, aided greatly by the natural anonymity endemic to cryptocurrencies.

## **Atbash Bond Initiatives**

### **Property purchases:**

One of the most critical purchases anyone ever makes is also one of the most difficult to achieve without participating in the traditional banking system. That's the day when one decides it is time to buy a home. The Atbash Housing Bond Market exists to help achieve this end without ever stepping foot inside a bank to request a loan. Since The Atbash Protocol does not issue loans but Treasury backed grants, those utilizing this program will be able to purchase a house or property for 50% of its current listing price (See Diagram Below)

Single investor purchasing and group property purchases can both be handled by The Atbash Protocol. For solo buyers to get started, investors will simply need to stake funds into the Atbash Housing pool to receive a Crypto Collateralized Home Grant.

In a traditional property purchase a buyer needs to either provide 100% of the purchase price of the property or seek financing from a bank which is paid off over time with additional interest. Not so with The Atbash Protocol. Our system has a potential property buyer approach the Protocol through the website and submit a request for assistance. The potential buyer submits simple information about the property and acknowledges that they currently possess 50% of the total selling price of the property. The Atbash Protocol will do some simple due diligence and then issue an approval. The awardee is then required to convert the 50% of the property cost into Ethereum or DAI and deposit it with the protocol for 30 days. At the end of that 30 days the full 100% of the cost of the property will be sent to the seller and the title will be transferred to the buyer. The Atbash Protocol will hold a lien on the property for 90 days to ensure that the buyer has fully complied with all state filing requirements and that the transaction for purchase has been completed and no refunds to the buyer have been issued. After 90 days, the Lien will be removed and the buyer will be issued an NFT containing their grant award certificate acknowledging the buyer now owns the property free and clear. From the day the property is bought, the user will not be asked for any additional funds from the Atbash Protocol.

### **The Marketplace:**

The Atbash Store is the digital marketplace for all your survival needs. Customers will make all purchases with \$BASH. In times of scarcity, a seniority system will ensure that customers invested in Atbash the longest will always take priority in purchasing important goods such as ammunition, firearms, body armor, fuel and other critical supplies. Because of its pooled purchasing power and partnerships, the Atbash Store will always be stocked and ready to go for our customer base when supply chains slow or break down entirely.

A secondary feature of the Atbash store is the Atbash Auction House, where users will be able to sell pre-owned goods for \$BASH tokens through either normal sales or auction house

mechanics. Atbash is a licensed and bonded FFL and will be able to handle direct firearms sales to and for users.

A loyalty system will be established for Atbash store customers, where rewards gained from purchases over time can be used for discounts on future purchases, free shipping, to enter special giveaways, and for preferential access to special limited supply items that come up for sale.

### **Small Business, Property Development, Sustainability Grants**

The principle that guides the Atbash Property Ownership Initiative will be expanded into the areas of small business start up grants, property development grants, agricultural equipment purchases and many other types of acquisition services.

### **Atbash Raffle:**

Atbash will hold a weekly three in three raffle giveaway. Users will buy entry through staking into the Atbash raffle pool. At the end of every week winners will be randomly selected to receive the week's rewards.

## **Community**

Projects like Atbash are only as strong as the communities they are built upon. Many crypto projects talk a good game about building communities, but few build the real world tools necessary to make a material change to the way things are done *in the real world*.

The Atbash community will be fostered and strongly supported from day one with the goal of building your independence, not just financially but also in what the financial system is supposed to do; assist you in acquiring the real world goods and services that money represents.

It is a place for users to exchange tips and tricks, get in on giveaways, as well as attend special events, receive troubleshooting help, and to always keep up with the planned direction of the protocol.

Community makes the ecosystem work. Through the proper application of crypto's distinct advantages over the traditional banking system, namely its flexibility, anonymity and trustless design, The Atbash Protocol believes it can provide the tools necessary for building an entirely separate financial ecosystem while maintaining a completely voluntary architecture.

The Atbash Protocol's ethos begins and ends foremost with concern for the people invested and involved in it.

What The Atbash Protocol can provide for the community is our expertise in deploying existing technology to build something unique and purpose-driven with the singular focus of assisting our community to thrive within our protocol. Given its flexible nature, the The Atbash Protocol ecosystem of services can and will build out over time, to create an ever expanding list of utilities for people to take advantage of without the need to ever participate in establishment systems.

Atbash is a trip to the moon taken off the beaten path. Join us.

## **How Does The Atbash Protocol Work?**

Dollar-pegged stablecoins have become an essential part of the cryptocurrency market due to their lack of volatility as compared to tokens such as Bitcoin and Ether. Users are comfortable with transacting using stablecoins knowing that they hold the same amount of purchasing power today vs. tomorrow.

Unfortunately, as anyone who understands economics knows, this is a fallacy. The dollar is controlled by the US government and the Federal Reserve. This means a depreciation of the dollar also means a depreciation of these stablecoins. The Atbash Protocol solves this by creating a free-floating reserve currency, \$BASH, that is backed by a basket of assets.

By focusing on supply growth rather than price appreciation, The Atbash Protocol positions \$BASH so it can function as a currency that is able to hold its purchasing power regardless of market volatility. This is essential to accomplishing the goals of the Atbash Protocol, which is to provide those looking to escape the decaying cities of their country and begin a new life, a new career or a new community.

The \$BASH token serves as both the protocol's stable currency and its governance token. Users who buy \$BASH can do one of three things: they can hold onto it, stake it, or provide liquidity. Users who simply hold onto it will not see any benefits compared to holding any other token. Users who stake \$BASH will receive back sBASH, which is always 1:1 with \$BASH.

When the protocol mints \$BASH, it is distributed 90% to stakers and 10% to the Treasury. Since there is now more \$BASH than sBASH and sBASH should be 1:1 to \$BASH, sBASH rebases to bring it back to equilibrium. This allows the ability to compound yield just by holding the sBASH token. Finally, users can pair their \$BASH with DAI or ETH and provide liquidity to the OHM-DAI or OHM/ETH LP. The liquidity provider will get back LP tokens which they can then bond (essentially sell it to the protocol) to receive \$BASH at a discount on a vested schedule. The long term goal is that the \$BASH token will function similarly to a traditional stablecoin and will be used to quote product prices as well as in regular transactions.

Inflation occurs when the price of 1 \$BASH Token is greater than its intrinsic value, which initially is pegged at \$1. When the price of \$BASH is greater than \$1 the protocol offers DAI Bonds where users can give DAI to the protocol in exchange for \$BASH at a discount. Since each \$BASH only needs to be backed by 1 DAI in the treasury the number of DAI given to the protocol is the number of \$BASH Tokens that can be minted. The newly minted \$BASH tokens are distributed 90% to the stakers and 10% to the Treasury.

## **Is \$BASH a stable coin?**

No, \$BASH is not a stable coin. Rather, like Olympus and other similar protocols, \$BASH aspires to become an algorithmic reserve currency backed by other decentralized assets.

Similar to the idea of the gold standard, \$BASH provides free floating value in which its users can always fall back on, simply because of the fractional treasury reserves \$BASH draws its intrinsic value from.

### **\$BASH is backed, not pegged.**

Each \$BASH Token is backed by 1 DAI, not pegged to it. Because the treasury backs every \$BASH with at least 1 DAI, the protocol would buy back and burn \$BASH when it trades below 1 DAI. This has the effect of pushing the price of \$BASH back up to 1 DAI. \$BASH could always trade above 1 DAI because there is no upper limit imposed by the protocol. Think pegged == 1, while backed >= 1.

The \$BASH floor price or intrinsic value is 1 DAI. We believe that the actual price will always be 1 DAI + premium, but in the end that is up to the market to decide.

### **How does it work?**

At a high level, The Atbash Protocol consists of its protocol managed treasury, protocol owned liquidity, bonding mechanisms, and staking rewards that are designed to control supply expansion.

Bond sales generate profit for the protocol, and the treasury uses the profit to mint \$BASH and distribute them to stakers. With liquidity bonds, the protocol is able to accumulate its own liquidity.

### **What Are The Concepts of (3,3) and (1,1)?**

(3,3) is the idea that, if everyone cooperated in The Atbash Protocol, it would generate the greatest gain for everyone (from a game theory standpoint). Currently, there are three actions a user can take:

- Staking (+2)
- Bonding (+1)
- Selling (-2)

Staking and bonding are considered beneficial to the protocol, while selling is considered detrimental. Staking and selling will also cause a price move, while bonding does not (we consider buying \$BASH from the market as a prerequisite of staking, thus causing a price move). If both actions are beneficial, the actor who moves price also gets half of the benefit (+1). If both actions are contradictory, the bad actor who moves price gets half of the benefit (+1), while the good actor who moves price gets half of the downside (-1). If both actions are detrimental, which implies both actors are selling, they both get half of the downside (-1).

Thus, given two actors, all scenarios of what they could do and the effect on the protocol are shown here:



	Stake	Bond	Sell
Stake	(3, 3)	(1, 3)	(-1, 1)
Bond	(3, 1)	(1, 1)	(-1, 1)
Sell	(1, -1)	(1, -1)	(-3, -3)

- If we both stake (3, 3), it is the best thing for both of us and the protocol ( $3 + 3 = 6$ ).
- If one of us stakes and the other one bonds, it is also great because staking takes \$BASH off the market and puts it into the protocol, while bonding provides liquidity and DAI for the treasury ( $3 + 1 = 4$ ).
- When one of us sells, it diminishes the effort of the other one who stakes or bonds ( $1 - 1 = 0$ ).
- When we both sell, it creates the worst outcome for both of us and the protocol ( $-3 - 3 = -6$ ).

### Protocol Controlled Value (PCV)

Protocol Controlled Value (PCV) is simply the amount of value controlled by the Atbash Protocol. This amount will go up or down based on the actions taken by users as explained above – staking, selling, minting bonds.

Because the protocol controls the funds in its treasury, \$BASH can only be minted or burned by the protocol. This also guarantees that the protocol can always back 1 \$BASH with 1 DAI. If the price of \$BASH falls below 1 DAI then you can be confident that the protocol will indefinitely buy \$BASH below 1 DAI with the treasury assets until no one is left to sell.

This way, you can easily define the risk of your investment because you know what the protocol will do.

In this way, the protocol expands and contracts the supply of \$BASH based on market supply and demand principles. It becomes an algorithmically-controlled central bank. These decisions are made by the protocol, not people.

In short, you can't trust the FED but you can trust the code.

As the protocol accumulates PCV, more runway is guaranteed for the stakers. This means the stakers can be confident that the current staking Annual Percentage Yield (APY) can be sustained for a longer term because more funds are available in the treasury to pay out to investors (stakers).

### **Protocol Owned Liquidity (POL)**

The Atbash Protocol also owns most of its liquidity thanks to its bond mechanism. This has several benefits:

- The Atbash Protocol does not have to pay out high farming rewards to incentivize liquidity providers a.k.a renting liquidity
- The Atbash Protocol guarantees the market that the liquidity is always there to facilitate sell or buy transactions.
- By being the largest LP (liquidity provider), it earns most of the LP fees which represents another source of income to the treasury.
- All POL can be used to back \$BASH or Protocol Approved Loans. The LP tokens are marked down to their risk-free value for this purpose.

### **What If There Is A Run On The Atbash Protocol?**

Fractional reserve banking works because depositors don't withdraw their funds all at once. A depositor's faith in the banking system rests on regulations and agencies like Federal Deposit Insurance Corporation (FDIC).

The higher the faith in that system the lower the needed reserves within the banking system at any one time. However, when confidence drops, a run on the bank's deposits can, and often does, occur. Trenchant analysis by older Austrian-style economists made the strong argument that it was the formation of the FDIC which ended the Great Depression of the 1930's because it was with deposit insurance that people gained a measure of confidence.

As the crisis receded from memory, confidence grew.

\$BASH does not have FDIC insurance. But it doesn't need it because it has something better. It has an incentive structure that protects stakers.

To illustrate this let's take a look at how it performs during a hypothetical bank run.

In this scenario, we assume the majority of stakers panic and unstake their tokens from The Atbash Protocol - let's imagine that the staking percentage stood at 92% and quickly collapsed to 3.3%. The total amount of \$BASH now staked is just 55,000 tokens.

Next, we assume the Risk-Free Value (RFV) inflows to the treasury completely dry up because no one is willing to put money into a failing bank. This is a reasonable assumption during a bank run.

Finally, we assume that those last standing stakers bought in at a price of \$500 per \$BASH. The initial investment of these stakers would be:

$$\text{\$500 \$BASH} * 55,000 \text{ \$BASH} = \text{\$27.5 million}$$

Assume, also the total \$BASH supply is 2,082,553 and the RFV is \$47,041,833. Remember that 1 \$BASH is backed by 1 USD (DAI). By subtracting these two numbers, we know 44,959,280 \$BASH will get issued to the remaining stakers. In roughly a year, these stakers who held onto those 55,000 \$BASH will have:

$$55,000 + 44,959,280 = 45,014,280 \text{ \$BASH}$$

\$27.5 million investment made by these stakers will turn into about \$45 million based on cash flow alone if they stay staked (recall that 1 \$BASH is backed by 1 DAI== 1 USD). So, even if the 'bank collapses' those that hold through it will make back ~63% return for their faith and patience.

In this bank run scenario, the stakers who stay staked not only do they get their money back, but make a substantial return for risk. It is for this reason that (3,3) isn't just a popular meme, it is actually a dominant investment strategy.

The above scenario is 1) a kind of worst-case scenario and because of that is 2) unlikely to play out because when other people see extremely high rewards being paid to the stakers, they will copy their strategy by buying and staking \$BASH.

This is also why the percentage of \$BASH staked in TheAtbash Protocol is expected to consistently remain over 90% just as other similar protocols like OHM and TIME have done. .

### **What Is The Advantage Of Buying \$BASH When It Appears To Trade At A High Premium?**

When you buy and stake \$BASH, you capture a percentage of the supply (market cap) which will remain close to a constant. This is because your staked \$BASH balance also increases proportionately with change to the circulating supply. The implication is that if you buy \$BASH when the market cap is low, you would be capturing a larger percentage of the market cap.

## Rebasing

Rebasing is a mechanism by which your staked \$BASH balance increases automatically. When new \$BASH are minted by the protocol, a large portion of it goes to the existing stakers.

Because stakers only see their staked \$BASH balance instead of \$BASH, the protocol utilizes the rebase mechanism to increase the staked \$BASH balance so that 1 staked \$BASH is always redeemable for 1 \$BASH.

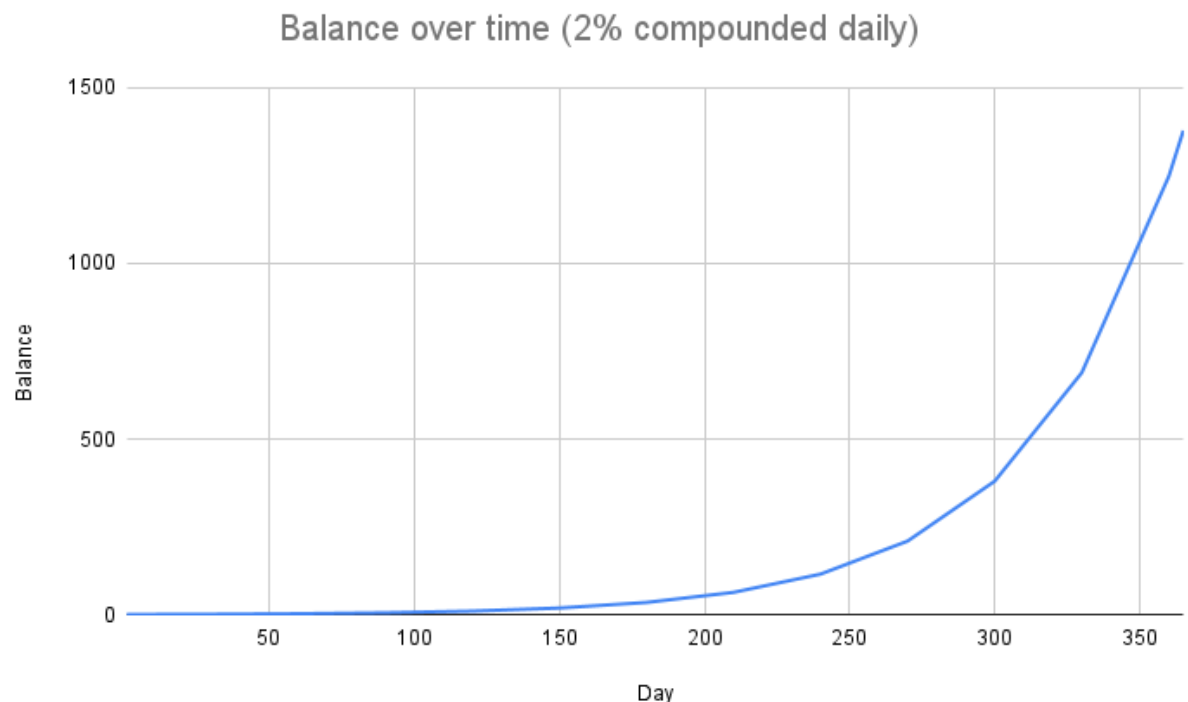
## What is reward yield?

Reward yield is the percentage by which your staked \$BASH balance increases at the completion of the next epoch. This is also known as *rebase rate*. You can find this number on The Atbash Protocol staking page.

## What is APY?

APY stands for annual percentage yield. It measures the real rate of return on your principal by taking into account the effect of compounding interest. In the case of The Atbash Protocol, your staked \$BASH represents your principal, and the compound interest is added periodically at the completion of every epoch (2200 Ethereum blocks, or around 8 hours) thanks to the rebase mechanism.

One interesting fact about APY is that your balance will grow not linearly but exponentially over time. Assuming a daily compound interest of 2%, if you start with a balance of 1 \$BASH on day 1, after a year, your balance will grow to about 1377. That is a lot!



That's nice. Exponential growth and the law of large numbers, however, is the kind of thing which is also not sustainable.

### How is the APY calculated?

The APY is calculated from the reward yield (a.k.a rebase rate) using the following equation:

$$APY = (1 + \text{rewardYield})^{1095}$$

It raises to the power of 1095 because a rebase happens 3 times daily. Consider there are 365 days in a year, this would give a rebase frequency of  $365 * 3 = 1095$ .

Reward yield is determined by the following equation:

$$\text{rewardYield} = \$BASH_{distributed} / \$BASH_{totalStaked}$$

The number of \$BASH distributed to the staking contract is calculated from \$BASH total supply using the following equation:

$$\$BASH_{distributed} = \$BASH_{totalSupply} \times \text{rewardRate}$$

Note that the reward rate is subject to change by the protocol. It will be based on the rate of PCV locked during the completion of each epoch and should reach a steady state over time.

### Why does the price of \$BASH become irrelevant in the long term?

As illustrated above, your \$BASH balance will grow exponentially over time thanks to the power of compounding. Let's say you buy a \$BASH Token for \$400 now and the market decides that in 1 year time, the intrinsic value of \$BASH will be \$2. Assuming a daily compound interest rate of 2%, your balance would grow to about 1377 \$BASH Tokens by the end of the year, which is worth around \$2754. That is a \$2354 profit or 586% on a nominal token price loss of 99.5%

What this analysis is telling you is that today you are paying a premium for \$BASH in exchange for the long-term benefit. This, in essence, is no different than any other investment strategy. The more time you are willing to lock up your money for, the more you should expect to be rewarded for your thrift in the future.

Our current monetary system makes access to money too cheap. The rewards are few, if any, for holding them over the long term. In fact, Fed policy is always, and without fail, expansionary in order to punish savers believing completely in John Maynard Keynes' idea of the Paradox of Thrift, which says that an excess of savings leads to economic recession.

Savings and deployment of capital should always be a market-driven process. Atbash understands this and your ability to come and go from it as you please is what will, in the long run, determine the optimal rate of savings without the Atbash community.

But, in no way is this without short-term capital risk. Thus, you should have a long investment horizon to allow your \$BASH balance to grow exponentially or not partake in this at all.

### **What will be the intrinsic value of the \$BASH Token in the future?**

There is no clear answer for this, but the intrinsic value can be determined by the treasury performance. For example, if the treasury could guarantee to back every \$BASH Token with 100 DAI, the intrinsic value will be 100 DAI. It can also be decided by the Atbash Protocol. For example, if at some point in the future, the token holders with governance rights, known as a DAO (Distributed Autonomous Organization), decide to raise the price floor of \$BASH, its intrinsic value will rise accordingly.

### **How does the protocol manage to maintain the high staking APY?**

Let's say the protocol targets an APY range of 1,000% to 10,000%, this would translate to a *minimum* reward yield of about 0.2105%, or a daily growth of about 0.6328%. Please refer to the equation above to learn how APY is calculated from the reward yield.

If there are 100,000 \$ATBASH Tokens staked right now, the protocol would need to mint an additional 632.8 \$BASH Tokens to achieve this daily growth. This is achievable if the protocol can bring in at least \$632.80 of daily revenue from bond sales. Even if the protocol doesn't bring in that much revenue, it can still sustain 1,000% APY for a considerable amount of time due to the excess reserve in the treasury.

### **Do I have to unstake and stake \$BASH on every epoch to get my rebase rewards?**

No. Once you have staked \$BASH with the Atbash App, your staked \$BASH balance will auto-compound on every epoch. That increase in balance represents your rebase rewards.

### **How do I track my rebase rewards?**

You can track your rebase rewards by calculating the increase in your staked \$BASH balance.

1. Record the Current Index value on the staking page when you first staked your \$BASH. Let's call this the Start Index.
2. After staking for some time, if you want to determine by how much your balance has increased, check the Current Index value again. Let's call this the End Index.
3. By dividing the End Index by Start Index, you would get the ratio by which your staked \$BASH balance has increased.

$$\textit{ratio}=\textit{endIndex}/\textit{startIndex}$$

4. In this example, the \$BASH balance has grown by 1.5 times.

# Staking \$BASH Tokens In The Atbash Protocol

## What is Staking

**Staking is the primary value accrual strategy of The Atbash Protocol.** Stakers stake their \$BASH Tokens on the Atbash Protocol website to earn rebase rewards. The rebase rewards come from the proceeds from bond sales, and can vary based on the number of \$BASH Tokens staked in the protocol and the reward rate set by monetary policy which is based on the supply and demand fundamentals of the previous epoch.

**Staking is a passive, long-term strategy.** The increase in your stake of \$BASH Tokens translates into a constantly falling cost basis converging on zero. This means even if the market price of \$BASH drops below your initial purchase price, given a long enough staking period, the increase in your staked \$BASH balance should eventually outpace the fall in price.

**When you stake, you lock \$BASH and receive an equal amount of sBASH.** Your sBASH balance rebases up automatically at the end of every epoch. sBASH is transferable and therefore composable with other DeFi protocols. It can be lent, staked as part of a liquidity pair, etc.

**When you unstake, you burn sBASH and receive an equal amount of \$BASH.** Unstaking means the user will forfeit the upcoming rebase reward. Note that the forfeited reward is only applicable to the unstaked amount; the remaining staked \$BASH (if any) will continue to receive rebase rewards.



## Bonding

### What is bonding?

**Bonding is the secondary value accrual strategy of The Atbash Protocol.** It allows The Atbash Protocol to acquire its own liquidity and other reserve assets such as ETH or USDT by selling \$BASH at a discount in exchange for these assets. The protocol quotes the bond with terms such as the bond price, the amount of \$BASH tokens entitled to the bond, and the vesting term. The bondholder can claim some of the rewards (\$BASH tokens) as they vest, and at the end of the vesting term, the full amount will be claimable.

**Bonding is an active, short-term strategy.** The price discovery mechanism of the secondary bond market renders bond discounts more or less unpredictable. Therefore bonding is considered a more active investment strategy that has to be monitored constantly in order to be more profitable as compared to staking.

**Bonding allows The Atbash Protocol to accumulate its own liquidity.** We call our own liquidity POL. More POL ensures there is always locked exit liquidity in our trading pools to facilitate market operations and protect token holders. Since The Atbash Protocol becomes its own market, on top of additional certainty for \$BASH investors, the protocol accrues revenue from LP rewards bolstering our treasury.

## Market Dynamics

There are several feedback mechanisms within the system. These are self-reinforcing behaviors. Action 1 increases the return on action 2 which increases the return on action 1. Circular mechanics like this are the drivers of exponential expansion. Economists call these boom and bust cycles. Loose monetary policy enables these dynamics while tight policy suppresses them.

Here are some perspectives on those involved with the Atbash ecosystem and what their incentives are.

**Stakers care primarily about their \$BASH balance.** While price is important in valuing their \$BASH and determining the rate at which it grows, it is not their main goal. A smart staker cares about the short and long term growth prospects of the network. If the network has strong prospects, and Atbash's focus on providing real world financial services to differentiate it from other similar projects, then the stakers will stay invested for the long term ensuring network growth. That growth translates into wealth via price and balance growth.

**Bondholders care primarily about the \$BASH price.** When they mint a bond, these users lock in a fixed reward in \$BASH. Therefore, network profitability is only helpful in calculating opportunity cost or gain; bondholders have their \$BASH gains locked in.

The ideal scenario for a bondholder is for the price of \$BASH to go up; in this case, the bondholder benefits from their discount on \$BASH and the increase in price over the life of the bond.

Bondholders are still happy if the price remains flat; their profit is the discount from the bond, which they can then stake or mint a new bond. Like stakers, bondholders profit from inactivity at or around their buy-in price via their increasing balance.

Bondholders lose when the price goes down beyond the discount on the bond. At this point, the bondholder will choose between the \$BASH or a return of their original liquidity providing tokens, depending on which one is worth more. Bondholders always get to choose the better of the two assets upon bond maturity, effectively combining the best pieces of both assets' risk to reward profiles.

The default state of the network lies at the underlying intrinsic value. After some long period of inactivity on the network, \$BASH token price will always return to this level.

Contractions are conceivably only triggered by short-term liquidity crises. Since \$BASH holders have a guarantee that price will come back above intrinsic value eventually, the only sellers below that intrinsic value should be those who need a short term exit and are willing to take the extra loss.

**Expansions can be triggered by an increase in staking or bonding.**

An increase in staking will generally be preceded by purchases from the market. That increases the price of \$BASH, which allows the protocol to sell at a higher price and it increases the yield for stakers. During periods where the market feels \$BASH is undervalued, rising prices should serve to bring in more stakers and continue the cycle until such time as the supply of sellers overwhelms the new buyers and prices begin a mean reversion process.

Meanwhile, the rising price also increases the bond discount offered to other token holders and creates capacity for minting new bonds. These are preceded by new liquidity, which improves the protocol's ability to carry out sales and increases available exit liquidity.

This positive price-liquidity feedback loop should serve to create sustainable expansionary periods. However, they work both ways. Falling demand decreases staking rewards and bond capacity, causing demand to fall further. This is an unavoidable fact of system's like this; even the best (i.e. Bitcoin) are no stranger to significant declines after periods of expansion.

The market is a price discovery mechanism and market prices are always subject to the supply of buyers and sellers of any commodity at any given price.

Atbash's reward system which focuses on long-term incentivizing of stakers should work to mitigate busts. This is where the protocol's reserves step in and to catch the market when velocity turns too far to the downside.

It does so through forward guidance (the fact that the protocol *will* buy \$BASH lowers risk the lower the price goes, which can mean we *don't have to* buy) and by buying perpetually below intrinsic value. The treasury ensures that, although bear markets and contractions can and will occur, the protocol can never die.

## **The Presale**

The Atbash Protocol will launch the presale to the public on January 11, 2022 at 12:00am. A total of 80,000 tokens out of 100,000 minted will be made available for a term of 2 weeks preceding the full launch of the Atbash Protocol. This represents a significant discount to the price that \$BASH will be available for at the end of the Presale. The Atbash Protocol will be offering these presale tokens at a price of 50 \$BASH Tokens for 1 Ethereum Token. The Proceeds of the Presale will be used to bootstrap the initial liquidity of the program and provide team resources in order to fund the future development of the Atbash Protocol's utilities.

$\frac{2}{3}$  of all presale proceeds will be used to fund protocol liquidity and initiatives.  $\frac{1}{3}$  of the proceeds of the presale will be used to fund the Development Team.

The Presale will conclude on January 25th and the full launch of the Atbash Protocol will occur on January 26th at 12:00am EST.